



SELF-FUSING SILICONE TAPE CHEMICAL RESISTANCES SHEET

Includes Black, Clear, and Colours

Silicone rubber has good resistance to many chemicals, fluids and oils encountered in extreme environments.

Dilute Acids, Alkalis and Aqueous Salt Solutions:

Whether hot or cold, these solutions have a negligible effect on silicones.

Concentrated Acids and Alkalis:

Silicones are attacked by concentrated acids and alkalis, especially oxidizing acids such as Sulphuric acid.

Polar Liquids:

Short chain alcohols and acetone cause very little swelling and can be used in appropriate applications.

Nonpolar Liquids:

Linear or cyclic hydrocarbons, aliphatic or aromatic mineral oils, gasoline etc. cause severe swelling. They can only be used to a very limited extent.

The following table lists the effect of various chemicals on silicone rubber when fully immersed for 336 hours at room temperature and 48.9°C (120°F).

Immersion Liquid	Exposure Time	Temp	Observation
Acetic Acid 10%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Acetic Acid 20%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Acetic Acid Concentrated	336 hrs	Room Temp	No Effect
		48.9C (120F)	Slight Cracking
Acetone	336 hrs	Room Temp	Slight Discolouration
		48.9C (120F)	Slight Discolouration
Ammonium Hydroxide 10%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Ammodium Hydroxide Concentrated	336 hrs	Room Temp	Very Slight Discolouration
		48.9C (120F)	Very Slight Discolouration
Aviation Fuel	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Not Tested



www.eal.com.au

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Immersion Liquid	Exposure Time	Temp	Observation
Acetic Acid 10%	336 hrs	Room Temp	No Effect
Benzene	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Not Tested
Boric Acid	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
20% Calcium Chloride in H2O	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Carbon Tetrachloride	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Diesel Fuel	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Not Tested
Distilled Water	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Ethylene Glycol	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Fatty Acids (Linseed Oil)	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Slight Discolouration, severe swelling
Formic Acid 10%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Gasoline	336 hrs	Room Temp	Slight Discolouration
		48.9C (120F)	Not Tested
Glycerine	336 hrs	Room Temp	Discolouration
		48.9C (120F)	
Hydraulic Fluid	336 hrs	Room Temp	Slight discolouration, slight swelling
		48.9C (120F)	
Hydrochloric Acid 5%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Hydrochloric Acid 10%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Hydrochloric Acid 20%	336 hrs	Room Temp	Discolouration & slight surface cracking
		48.9C (120F)	Discolouration & slight surface cracking
Hydrochloric Acid Concentrated	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Hydrogen Peroxide 10%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Kerosene	336 hrs	Room Temp	Slight Discolouration, moderate swelling
		48.9C (120F)	Not Tested
Methyl Alcohol	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect



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Acetic Acid 10%	336 hrs	Room Temp	No Effect
Methyl Ethyl Ketone	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Not Tested
Methyl Isobutyl Ketone	336 hrs	Room Temp	Slight Discolouration, severe swelling
		48.9C (120F)	Not Tested
Mineral Spirits	336 hrs	Room Temp	Slight Discolouration, moderate swelling
		48.9C (120F)	No Effect
Motor Oil	336 hrs	Room Temp	Slight Discolouration
		48.9C (120F)	Slight Discolouration, softening
Nitric Acid 5%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Nitric Acid 10%	336 hrs	Room Temp	For both temps, slight discolouration
		48.9C (120F)	and slightly increased pliability
Phosphoric Acid 50%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Potash Lye 20%	336 hrs	Room Temp	No Effect
		48.9C (120F)	Slight Distention, surface alterations
Soda Solution 20%	336 hrs	Room Temp	No Effect
		48.9C (120F)	Slight Distention, surface alterations
20% Sodium Chloride in H2O	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Sodium Hydroxide 50%	336 hrs	Room Temp	Surface altered, extreme pliability
		48.9C (120F)	Surface altered, increased pliability
Sodium Hypochlorite 1%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Sulfuric Acid 5%	336 hrs	Room Temp	No Effect
		48.9C (120F)	No Effect
Sulfuric Acid 10%	336 hrs	Room Temp	Slight discolouration and cracking
		48.9C (120F)	Slight discolouration and cracking
Sulfuric Acid 25%	336 hrs	Room Temp	Discolouration & moderate cracking
		48.9C (120F)	Discolouration & moderate cracking
Sulfuric Acid 50%	336 hrs	Room Temp	Discolouration & severe cracking
		48.9C (120F)	Discolouration & severe cracking
Toluene	336 hrs	Room Temp	Slight Discolouration, moderate swelling
		48.9C (120F)	Not Tested
Trichloroethane	336 hrs	Room Temp	Slight Discolouration, moderate swelling
		48.9C (120F)	Not Tested
Xylene	336 hrs	Room Temp	Slightly increased pliability
		48.9C (120F)	No Effect